

REMARKS

In the Previous Office Action, independent claims 1 and 15 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,985,490 (Czeiger). The Applicants' Office Action Response was considered and now the Examiner is rejecting independent claims 1 and 15 under new grounds. More specifically, the Examiner is rejecting independent claims 1 and 15 under 35 U.S.C. 103(a) as being unpatentable over Czeiger in view of NCITS Standard "Fibre Channel Switch Fabric-2" (FC-SW-2).

Figure 2 of Czeiger shows two Fibre Channel Storage Area Networks or "SAN A" 22 and "SAN B" 42. The SAN A 22 includes a plurality of clients 24, switches 27, and a "gateway" 26. As described in column 6 lines 1-5, the gateway 26 is a "FC switch of SAN A". SAN B also includes a plurality of clients 44, switches 45, and a gateway 46. As described in column 6 lines 40-45, the gateway 46 also operates as a FC switch. The two gateways or switches 26 and 46 are connected to each other by a coupling 54. In various embodiments of Czeiger, the coupling 54 is either a fiber optic or electronic connection using a communication protocol, such as Ethernet, SONET, ATM, or SDH, to allow the two gateways 26 and 46 to communicate with one another. See column 6 lines 50-60.

However, Czeiger does not teach or suggest any mechanism "configured to enable communication between the first set of end devices in the first fabric with the second set of end devices associated with the second fabric while maintaining the unique Domain_ID addresses of the first set of end devices and the second set of end devices." Czeiger is believed to use a conventional address translation mechanism described in the Background section of the present application and does not maintain Domain_ID addresses. "One problem with this approach is that the border Switches between the VSANs perform FC_ID translations (i.e., Network Address translations or NATs) for the source and destination end devices. If a border Switch goes down, an alternative or fail-over path needs to be created. In addition, with certain frames, both the source and/or destination FC_IDs may be defined in the payload. A mechanism that identifies and translates these IDs must therefore be provided. This solution also does not work if encryption or a proprietary protocol is used between the source and destination end devices because there is no way for the border Switches to process the proprietary payloads or de-crypt the frames to identify the source and destination FC_IDs." (Specification [0011])

The Examiner argues that Czeiger allows end devices to retain their local addresses. The Examiner argues that the local address includes the Domain_ID. Czeiger states “the formation of virtual switches does not require changing local addresses of clients or their associated local FC switches.” (column 2, lines 31-33) However, Czeiger’s use of the term local address is believed not to include a Domain_ID as stated by the Examiner. Czeiger describes the components of a local address. “FIG. 1 is a schematic diagram of an address structure 10 according to the Fibre Channel protocol, as is known in the art. Address structure 10 is formed of three bytes, and is used both as a source and a destination address identification when data is transmitted. A first byte 12 is an identifier of the switch to which the client is coupled. The FC protocol limits the number of switches within a SAN, identified via byte 12, to 239. A second byte 14, having up to 256 values, is a port identifier of the switch. A third byte 16 is an arbitrated loop identifier. A client is coupled either directly to a port of the switch, or via an arbitrated loop.” Czeiger does not mention any Domain_ID in the description of the address structure. In fact Czeiger does not mention any Domain_ID anywhere in the Specification or Figures.

It is respectfully submitted that it can not be assumed the Czeiger describes maintaining a Domain_ID when the Domain_ID is not mentioned anywhere. For example, Czeiger may be describing Fibre Channel Arbitrated Loop (FC-AL) topologies that are believed not to necessarily use any Domain_ID.

Nonetheless, to facilitate prosecution, independent claims 1 and 15 have been amended to recite “wherein Domain_ID addresses of the first set of devices are announced to the second set of end devices if the second set of end devices reside in the same inter-VSAN zone as the first set of end devices or the second set of end devices reside in a transit VSAN.” This recitation is supported in at least (paragraphs 51 and 52 and Figure 5).

For example, “[0051] Since the FSPF protocol is contained within a VSAN, in order to support routing for domains that are in other VSANs, the following modifications are implemented: [0052] For each Domain_ID of a device that is part of an inter-VSAN zone, a border switch considers the Domain_ID for announcement into the adjacent VSANs. An adjacent VSAN may be a transit VSAN or an edge VSAN. A thus selected Domain ID is announced into an adjacent VSAN if either that VSAN is a transit VSAN or there is a device in the VSAN that is part of the same inter-VSAN zone.”

None of the references cited by the Examiner teach or suggest this modification to the FSPF protocol. Czeiger does not teach or suggest sending frames using FSPF and FC-SW-2 describes FSPF without modification.

In light of the above remarks, the rejections to the independent claims are believed overcome for at least the reasons noted above. Applicants' Representative believes that all pending claims are allowable in their present form. If the Examiner has any questions or concerns for Applicants' Representative, the Examiner is encouraged to contact the Undersigned at the number provided below.

Respectfully submitted,
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